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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,271	12/23/2003	Helmar Van Santen	081468-0307331	4441

909 7590 07/05/2006

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EXAMINER

NGUYEN, HUNG

ART UNIT PAPER NUMBER

2851

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/743,271

Applicant(s)

VAN SANTEN ET AL.

Examiner

Hung Henry V. Nguyen

Art Unit

2851

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 06 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: see attached document. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): the rejection of claim 27 under 35 U.S.C. 112, second paragraph.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 1,3-13 and 15-20.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 21-25, 27-36.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.



Hung Henry V. Nguyen  
Primary Examiner  
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***Response to Applicant's Amendment***

1. Applicant's arguments in conjunction with the applicant's amendment after final filed 6/6/06 have been carefully considered. Claim 30 has been amended and new claim 27 has been added.

With respect to claim 27, in light of applicant's remarks on page 1, third paragraph, the rejection of claim 27 under 35 U.S.C. 112 second paragraph is withdrawn.

Turning to the 35 U.S.C. 102(e) rejection of claims 21-22, 24, 30-31 and 33 under the reference of Mizutani et al, applicant's arguments are not found to be persuasive. In response to applicant's argument that "there is no indication in Mizutani et al that the liquid supply nozzle 4 is mechanically isolated from the projection optical system Pl. Mizutani et al is silent as to how the supply nozzle 4 is connected to the lithography apparatus. Clearly, the supply nozzle 4 can not be merely suspended in air-it must be connected to something. Mizutani et al fails to identify this connection and Applicants submit that supply nozzle may be connected to the projection optical system (or its frame) such that the inlet port is not mechanically isolated from the projection optical system"; the Examiner respectfully disagrees with the applicant since there are several problems with applicant's analysis. Firstly, there is no evidence whatsoever the nozzle 4 is connected to the projection optical system (or its frame) as guessed by applicants. As clearly illustrated from figure 1 of Mizutani et al, the supply nozzle 4 is connected to the liquid supply unit 1. Thus, Mizutani et al meets the claimed limitations because "the supply nozzle 4 is provided on a boundary of the space between the substrate and the projection optical system, not provided on the substrate table and mechanically isolated from the projection system". Secondly, as suggested by applicants, even if the nozzle is connected to the projection system (or

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its frame) in order to reduce unwanted vibration of an optical element in the projection system generated by the nozzle, one having ordinary skill in the art would employ (at least) a bellows (damper, an anti-vibration unit) between the nozzle and the projection optical system. This would be within the level of a skilled artisan.

Turning now to amended claim 30, the newly added limitation of “wherein the at least one immersion liquid outlet port is radially outwardly, relative to an optical axis of the projection system, of the at least one immersion liquid inlet port” would require further consideration and/or search.

As to the rejection of claims 25, 28-29, 32, 35-36, applicant is correct in pointing that the rejection is made under 35 U.S.C 103(a) as being obvious in view of Mizutani et al and Schuster et al (U.S.Pat. 6,781,668). The Examiner regrets and apologizes for this typographical error. Regarding the rejection of claims 23 and 27 under 35 U.S.C. 103(a) as being obvious in view of Mizutani et al and Lin. Taken as a whole, it remains the position of the Examiner that the combination of Mizutani et al and Schuster and the combination of Mizutani and Lin, have disclosed every feature claimed by applicant in the above mentioned claims.

Lastly, as to the Examiner’s statement of reasons for the indication of allowable subject matter of claims 1, 3-13 and 15-20, the Applicant states that “portions of the Examiner’s comments paraphrase claim features and/or combine features from separate claims and thus do not accurately represent the actual claim language”. The Examiner has carefully reviewed the statement of reasons for the indication of allowable subject matter of these claims and the Examiner recognizes that the statement does truly reflect the claimed subject matters of these claims. The Examiner has no intention to narrow the scope of the claims. If the applicants do

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not agree with the Examiner, the applicants are requested to clearly point out the language in the statement that the applicants consider “ not accurately represent the actual claim language” so that the Examiner can be aware of such language.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

hvn  
6/22/06



HENRY HUNG NGUYEN  
PRIMARY EXAMINER